

AMENDMENTS TO THE CLAIMS

Please amend Claims 250, 261, 262, 266, 269, 270, 271, and 281 and add Claims 290 through 316 as follows:

1 - 249. (Cancelled)

250. (Currently Amended) A system for deicing, comprising:

a vehicle;

a boom having an end mounted on said vehicle and a free end;

a lightweight air source disposed at the base of ~~so as to rotate together with~~ said boom ~~in an enclosure connected to said boom~~; and

a deicer air jet nozzle located at said boom and operatively coupled to said air source for receiving air and discharging the air for a deicer application,

wherein said air source is disposed above a roof of the vehicle, and

wherein a power source for said air source is disposed below the roof of the vehicle.

251. (Previously Presented) The system according to claim 250, wherein said lightweight air source is a compressor unit comprising:

a hydraulic drive assembly having an output; and

a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

252. (Previously Presented) The system according to claim 251, wherein said hydraulic drive assembly is a hydraulic motor.

253. (Previously Presented) The system according to claim 251, wherein said compressor is a centrifugal compressor.

254. (Previously Presented) The system according to claim 251, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

255 - 257. (Cancelled)

258. (Previously Presented) The system according to claim 251, wherein said compressor provides air through said deicer air jet nozzle at a rate of about 100 pounds per minute.

259 - 260. (Cancelled)

261. (Currently Amended) A system for deicing aircraft, comprising:
a vehicle;
a boom having a first end mounted on said vehicle and a free end;

a lightweight compressor unit disposed at the first end of ~~so as to rotate together with~~
said boom ~~in an enclosure connected to said boom~~; and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight
compressor unit for receiving air and discharging the air for a deicer application,

wherein said lightweight compressor unit is disposed above a roof of the vehicle, and
wherein a power source for said lightweight compressor unit is disposed below the
roof of the vehicle.

262. (Currently Amended) A system for deicing aircraft, comprising:

a vehicle;

a boom having a first end mounted on said vehicle and a free end;

a lightweight compressor unit disposed at the first end of ~~so as to rotate together with~~
said boom ~~in an enclosure connected to said boom~~; and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight
compressor unit for receiving air and discharging the air for a deicer application,

wherein said lightweight compressor unit further comprises (a) a hydraulic drive
assembly having an output, and (b) a compressor operatively connected to the output of said
high-speed drive assembly, said compressor having an impeller and an air outlet,

wherein said lightweight compressor unit is disposed above a roof of the vehicle, and
wherein a power source for said lightweight compressor unit is disposed below the
roof of the vehicle.

263 - 264. (Cancelled)

265. (Previously Presented) The system according to claim 262, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

266. (Currently Amended) A system for deicing aircraft, comprising:

a vehicle;

a boom having an end mounted on said vehicle and a free end;

an operator cab located at the free end of said boom;

a lightweight compressor unit disposed at the base of ~~so as to rotate together with~~ said boom ~~in an enclosure connected to said boom~~; and

a deicer air jet nozzle located at said boom and operatively coupled to the air outlet of said compressor unit for receiving air and discharging the air for a deicer application,

wherein said compressor unit is disposed above a roof of the vehicle, and

wherein a power source for said compressor unit is disposed below the roof of the vehicle.

267. (Previously Presented) The system according to claim 266, wherein said compressor unit further comprises:

a hydraulic drive assembly having an output; and

a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

268. (Previously Presented) The system according to claim 267, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

269. (Currently Amended) A system for deicing aircraft, comprising:

a vehicle;

a boom, having an end mounted on the vehicle and a free end;

a compressor unit, said compressor unit comprising (a) a hydraulic motor having an output, and (b) a compressor operatively connected to the output of said hydraulic motor, said compressor having an impeller and an air outlet; and

a deicer air jet nozzle located at the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application,

wherein said compressor unit is located ~~at so as to rotate together with the boom in an enclosure connected to said boom, and~~

wherein said compressor unit is disposed above a roof of the vehicle, and

wherein a power source for said compressor unit is disposed below the roof of the vehicle.

270. (Currently Amended) A method for deicing aircraft, comprising the steps of:
compressing air within a compressor~~[[,]]~~ supported at the base of ~~so as to rotate together with~~ a vehicle boom ~~in an enclosure connected to the vehicle boom~~; by driving a hydraulic drive assembly coupled to the compressor; and
discharging the air from a deicer air jet nozzle attached to the end of the vehicle boom such that air is forced outward from the deicer air jet nozzle at about 100 pounds per minute,
wherein the compressor is disposed above a roof of the vehicle, and
wherein a power source for the compressor is disposed below the roof of the vehicle.

271. (Currently Amended) A system for deicing aircraft, comprising:
a vehicle;
a boom having an end mounted on said vehicle and a free end;
an operator cab located at the free end of said boom; and
a lightweight compressor unit located ~~at so as to rotate together with~~ said boom ~~in an enclosure connected to said boom~~,
wherein said deicer air jet nozzle is located at said boom and operatively coupled to the air outlet of said compressor unit for receiving air and discharging the air for a deicer application, and
wherein said compressor unit is disposed above a roof of the vehicle, and
wherein a power source for said compressor unit is disposed below the roof of the vehicle.

272. (Previously Presented) The system according to claim 271, wherein said compressor unit further comprises:

a hydraulic drive assembly having an output; and

a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

273. (Previously Presented) The system according to claim 272, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

274. (Previously Presented) The system according to claim 250, wherein said lightweight air source is a compressor unit comprising:

a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet.

275. (Previously Presented) The system according to claim 274, wherein said hydraulic drive assembly is a hydraulic motor.

276. (Previously Presented) The system according to claim 274, wherein said compressor is a centrifugal compressor.

277. (Previously Presented) The system according to claim 274, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

278. (Previously Presented) The system according to claim 274, wherein said compressor provides air through said deicer air jet nozzle at a rate of about 100 pounds per minute.

279 - 280. (Cancelled)

281. (Currently Amended) A system for deicing aircraft, comprising:

a vehicle;

a boom having a first end mounted on said vehicle and a free end;

a lightweight compressor unit disposed at the first end of ~~so as to rotate together with~~
said boom ~~in an enclosure connected to said boom~~; and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight compressor unit for receiving air and discharging the air for a deicer application,

wherein said compressor unit further comprises a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet,
and

wherein said compressor unit is disposed above a roof of the vehicle, and
wherein a power source for said compressor unit is disposed below the roof of the
vehicle.

282. (Cancelled)

283. (Previously Presented) The system according to claim 281, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

284. (Previously Presented) The system according to claim 266, wherein said compressor unit further comprises:

a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet.

285. (Previously Presented) The system according to claim 284, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

286 - 289. (Cancelled)

290. (New) A system for deicing, comprising:

a vehicle;

a boom having an end mounted on said vehicle and a free end;

one of (a) a lightweight air source disposed at the base of said boom, wherein said air source is disposed above a roof of the vehicle, and wherein a power source for said air

source is disposed below the roof of the vehicle, and (b) a lightweight air source disposed so as to rotate together with said boom in an enclosure connected to said boom; and

a lightweight air source disposed so as to rotate together with said boom in an enclosure connected to said boom; and

a deicer air jet nozzle located at said boom and operatively coupled to said air source for receiving air and discharging the air for a deicer application.

291. (New) The system according to claim 290, wherein said lightweight air source is a compressor unit comprising:

a hydraulic drive assembly having an output; and

a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

292. (New) The system according to claim 291, wherein said hydraulic drive assembly is a hydraulic motor.

293. (New) The system according to claim 291, wherein said compressor is a centrifugal compressor.

294. (New) The system according to claim 291, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

295. (New) The system according to claim 291, wherein said compressor provides air through said deicer air jet nozzle at a rate of about 100 pounds per minute.

296. (New) A system for deicing aircraft, comprising:

a vehicle;

a boom having a first end mounted on said vehicle and a free end;

one of (a) a lightweight compressor unit disposed at the first end of said boom, wherein said lightweight compressor unit is disposed above a roof of the vehicle, and wherein a power source for said lightweight compressor unit is disposed below the roof of the vehicle, and (b) a lightweight compressor unit disposed so as to rotate together with said boom in an enclosure connected to said boom; and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight compressor unit for receiving air and discharging the air for a deicer application.

297. (New) A system for deicing aircraft, comprising:

a vehicle;

a boom having a first end mounted on said vehicle and a free end;

one of (a) a lightweight compressor unit disposed at the first end of said boom, wherein said lightweight compressor unit is disposed above a roof of the vehicle, and wherein a power source for said lightweight compressor unit is disposed below the roof of the vehicle, and (b) a lightweight compressor unit disposed so as to rotate together with said boom in an enclosure connected to said boom, and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight compressor unit for receiving air and discharging the air for a deicer application,

wherein said lightweight compressor unit further comprises (a) a hydraulic drive assembly having an output, and (b) a compressor operatively connected to the output of said high-speed drive assembly, said compressor having an impeller and an air outlet.

298. (New) The system according to claim 297, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

299. (New) A system for deicing aircraft, comprising:

a vehicle;

a boom having an end mounted on said vehicle and a free end;

an operator cab located at the free end of said boom;

one of (a) a lightweight compressor unit disposed at the base of said boom,

wherein said compressor unit is disposed above a roof of the vehicle, and wherein a power source for said compressor unit is disposed below the roof of the vehicle, and (b) a lightweight compressor unit disposed so as to rotate together with said boom in an enclosure connected to said boom; and

a deicer air jet nozzle located at said boom and operatively coupled to the air outlet of said compressor unit for receiving air and discharging the air for a deicer application,

300. (New) The system according to claim 299, wherein said compressor unit further comprises:

a hydraulic drive assembly having an output; and
a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

301. (New) The system according to claim 300, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

302. (New) A system for deicing aircraft, comprising:

a vehicle;
a boom, having an end mounted on the vehicle and a free end;
a compressor unit, said compressor unit comprising (a) a hydraulic motor having an output, and (b) a compressor operatively connected to the output of said hydraulic motor, said compressor having an impeller and an air outlet; and
a deicer air jet nozzle located at the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application,
wherein one of the following conditions is satisfied (a) said compressor unit is located at the boom, said compressor unit is disposed above a roof of the vehicle, and a power source for said compressor unit is disposed below the roof of the vehicle, and (b) wherein said compressor unit is located so as to rotate together with the boom in an enclosure connected to said boom.

303. (New) A method for deicing aircraft, comprising the steps of:

one of (a) compressing air within a compressor supported at the base of a vehicle boom by driving a hydraulic drive assembly coupled to the compressor, wherein the compressor is disposed above a roof of the vehicle, and wherein a power source for the compressor is disposed below the roof of the vehicle, and (b) compressing air within a compressor, supported so as to rotate together with a vehicle boom in an enclosure connected to the vehicle boom, by driving a hydraulic drive assembly coupled to the compressor; and discharging the air from a deicer air jet nozzle attached to the end of the vehicle boom such that air is forced outward from the deicer air jet nozzle at about 100 pounds per minute.

304. (New) A system for deicing aircraft, comprising:

a vehicle;
a boom having an end mounted on said vehicle and a free end;
an operator cab located at the free end of said boom; and
one of (a) a lightweight compressor unit located at said boom, wherein said compressor unit is disposed above a roof of the vehicle, and wherein a power source for said compressor unit is disposed below the roof of the vehicle, and (b) a lightweight compressor unit located so as to rotate together with said boom in an enclosure connected to said boom,

wherein said deicer air jet nozzle is located at said boom and operatively coupled to the air outlet of said compressor unit for receiving air and discharging the air for a deicer application.

305. (New) The system according to claim 304, wherein said compressor unit further comprises:

a hydraulic drive assembly having an output; and
a compressor operatively connected to the output of said hydraulic drive assembly, said compressor having an impeller and an air outlet.

306. (New) The system according to claim 305, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

307. (New) The system according to claim 290, wherein said lightweight air source is a compressor unit comprising:

a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet.

308. (New) The system according to claim 307, wherein said hydraulic drive assembly is a hydraulic motor.

309. (New) The system according to claim 307, wherein said compressor is a centrifugal compressor.

310. (New) The system according to claim 307, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

311. (New) The system according to claim 307, wherein said compressor provides air through said deicer air jet nozzle at a rate of about 100 pounds per minute.

312. (New) A system for deicing aircraft, comprising:

a vehicle;

a boom having a first end mounted on said vehicle and a free end;

one of (a) a lightweight compressor unit disposed at the first end of said boom,

wherein said compressor unit is disposed above a roof of the vehicle, and wherein a power source for said compressor unit is disposed below the roof of the vehicle, and (b) a lightweight compressor unit disposed so as to rotate together with said boom in an enclosure connected to said boom; and

a deicer air jet nozzle located at the boom and operatively coupled to said lightweight compressor unit for receiving air and discharging the air for a deicer application,

wherein said compressor unit further comprises a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet.

313. (New) The system according to claim 312, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

314. (New) The system according to claim 299, wherein said compressor unit further comprises:

a compressor operatively connected to the output of a hydraulic drive assembly, said compressor having an impeller and an air outlet.

315. (New) The system according to claim 314, wherein said compressor is operatively directly connected to the output of said hydraulic drive assembly.

316. (New) A method for deicing aircraft, comprising the steps of:

compressing air within a compressor, an enclosure for which is connected to a vehicle boom, by driving a hydraulic drive assembly coupled to the compressor; and

discharging the air from a deicer air jet nozzle attached to the end of the vehicle boom such that air is forced outward from the deicer air jet nozzle at about 100 pounds per minute,

wherein the compressor is disposed above a roof of the vehicle, and
wherein a power source for the compressor is disposed below the roof of the
vehicle.